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" Salvation of India lies in Cottages."

—*MAHATMA GANDHI*

THE FATE OF THE SECOND PLAN

WHILE the Second Five-year Plan is about to complete its second year in MARCH 1958, the economic crisis that has overtaken the country has rendered its future uncertain and precarious. Difficulties of foreign exchange position accompanied with poor prospects of foreign loans or aid, mounting unemployment and shortage of food at home have all combined to put the progress of the Plan in jeopardy. A process of retreat, officially known as pruning and rephasing of the Plan is in progress. Nobody, including the planners, just at the moment know as to what the Core of the plan is and how it is likely to be implemented.

Anyway, the programme of large-scale industrialisation of the country, as was originally aimed at by the Second Plan, more or less stands suspended due to shortage of finance and the difficulties of foreign exchange. It is obvious that in the pruned and rephased plan that is in the process of being shaped by the Planning Commission, top-priority must of necessity be assigned to increased production of food which is the primary need of the people.

Food situation which was bad enough has become still worse during the current year due to floods and droughts in many parts of the country creating famine or near-famine conditions. Heavy imports of flood-grains from abroad will have to be restricted due to difficulty of our balance of payments position. All these factors have made it imperative to our planners to revise the plan in favour of increased food and agricultural production. The rephased Second Plan will, therefore, have agricultural and food production bias to meet the economic crisis the country is faced with.

While addressing the annual meeting of the Associated Chamber of Commerce in Calcutta, the Prime Minister, Shri Nehru, emphasised the need of food and agricultural production in the present context of the country's situation, when he is reported to have stated :—

"Agriculture was the basic and fundamental factor in India, on which industry must be based. There can be no industrial advance unless we get over our food difficulties. Food production should be increased not only to meet the country's needs, but for export also. This would earn as also save foreign exchange."

Further elaborating the theme of developing the internal resources of the country, he is reported to have said :—

"The real problem, however, was internal resources, which must grow in agriculture and industry. It is fantastic that India should be spending so much money on importing food-stuffs. The people referred to the Ashok Mehta Food Grains Inquiry Committee's statement that two to three million tons of food had to be imported over the next few

years, but they forgot that the Committee had also pointed out that this need not happen if special effort was made.

"Oddly enough, the hopeful feature of the situation is one which troubles us most–low yield per acre, because this can be increased. It could be increased three to four times and he would be happy if even a 50 percent increase was achieved.

"Just putting more land under cultivation was not enough. An increase in yield per acre was necessary. This should be achieved by concentrating on 1000,000,000, acres of land by irrigation and other methods. Good monsoon or bad, this must be done."

True, our yield per acre is probably the lowest in the world, but so are the resources and equipment of the man behind the plough who alone can increase this percentage of yield. Increase in yield could be achieved in proportion to the volume of increasing financial and technical efficiency of the cultivator. For effecting 50% increase in yield per acre, which is desired by the Prime Minister in the near future, there should be corresponding increase in financial, technical and administrative efficiency of the State to provide the cultivator with the sinews of increased agricultural production. It was admitted by the Prime Minister in the course of the same address that the State Governments, who were primarily responsible to intensify this programme of increased food production, did not play their part well in the past when he is reported to have observed :—

"The State Governments for whom it has become a practice to demand supplies from the Centre and because these supplies were relatively easily secured, they failed to apply as much pressure on development in their own areas, as they should."

If this had been the attitude of the State Governments in the past when the food–front was fought on a war–basis, what transformation does the Prime Minister expect in their attitude when he is out to tackle the problem a second time with special effort, he has in view?

Special Effort

What precisely would be the scope and extent of this special effort and what financial and other facilities of irrigation, fertilisers, improved seeds etc., the States would be able to provide at the village and individual farm–level has not been made known to the people by the Prime Minister or the Planning Commission which may carry conviction to the people that the Government is out for the special effort to tackle the food problem. The problem was with us ever since we have attained Independence and in the words of the Prime Minister himself it was fought on a war-basis. During the operation of the first Plan when due to favourable monsoons in the years 1953 and 1954 there was peak production, it was officially declared by the Prime Minister and the Planning Commission that they had exceeded to their targets on the food–front and the first Plan was a grand success. How is it that within a couple of years of this proclaimed success at the food–front, the country is once again faced with serious food-shortages necessitating heavy imports of food-stuffs from abroad in the midst of economic crisis in the country and the difficulties of foreign exchange? Obviously, the re–emergence of the food-problem is an open Contradiction of the official claim of the first plan and the solution of the food problem that was claimed for it.

It is variously suggested by the Prime Minister and the Union Food Minister that in the new special effort the food problem should be tackled on a village and individual farm basis, which, of course, is the correct approach to this one of the most complicated of the country's problems. But the immensity of the task involving village–wise organisational set-up to provide financial and technical facilities to the cultivator; to

fix farm-wise targets of production and to check up that these targets are achieved year after year, making allowance for bad years which are usually one in three, is simply staggering. We wonder, if the present administration which believes in propaganda, wishful thinking and vague assumptions will all of a sudden transform itself into a realist and practical administration and work out the details of food programme with a method and system which it has consistently ignored all these years.

The greatest weakness of our present administration is that it is incapable of looking at a problem whether political, administrative or economic from a practical and common-sense point of view; to follow a method and work out the minutest details of a programme which alone produces results. It is this lacuna in the make up of our present administrators and therefore in the administration which is the cause of all-round confusion and multiplicity of the problems the country is faced with.

Economic Crisis

Food shortage is a part of Economic Crisis which is due to confused policies and actions of our administration. They are leading us to so-called progress which is endangering the very stability of the country. The present economic crisis which has practically created a deadlock in the progress of the country has been explained by Shri G. D. Birla in the course of a Press Conference in Bombay after the return of the Industrial Delegation from abroad. He is reported to have stated :—

"India is at present in a peculiar position. There are contradictory currents in our present economic problems and difficulties which need the attention of all those interested in our progress.

"We find that while there in no serious difficulty for the private sector in attracting foreign investments or Commercial credits from abroad, but in order to make full use of them we must have, in the first place, a project in our hand. And to have a project we must primarily be in a position to raise the initial capital in the country itself.

"As things are at present, there is not the slightest possibility of raising any sizable capital in India. And, if we cannot raise internal capital, we can have no project and consequently no basis for seeking credits from abroad.

"The Government's difficulties, on the other hand, are more of foreign exchange.

"Thus, if the private sector is stuck up due to the scarcity of internal resources, the public sector is held up for want of foreign capital.

"The path of progress is thus completely blocked."

The dismal situation in the economic sphere, as stated by Shri Birla is the result of confused thinking at the policy-making level in our country. And, it is equally reflected in the Administrative and planning spheres as well, which has called for pruning and rephasing of the plan. This was borne out by the recent debate on the Second Plan in the Lok Sabha, when Acharya Kriplani pointed out the basic defect of the plan and observed :—

"The plan had not been scientifically drawn up. It had been drawn up under the over-all direction of a 'Statistician.' Even in regard to food production, proper calculations had not been made with the result that today the food position appeared to be very hopeless.

"It is very strange that we should not have known what our financial position would be even one year after the plan began. I think it should not have been difficult for our Finance Minister to know what the exchange position would be."

Climate for self-help and enterprise

Against the background of discouraging climate created in the country by confused policies and actions of our administration, one wonders, what makes our Prime Minister and other leaders to appeal to the people for self-help and enterprise to make the second Plan a success? No doubt, these qualities are essential for national advancement, but it is the job of the national administration.

to create congenial climate for their free play, which our administration has failed to do. This basic drawback which is hampering the progress of the nation has been ably pointed out by Shri M. R. Masani, in the course of the debate on the Plan in the Lok Sabha, when he has reported to have stated :—

"Self-help could succeed only when qualities like enterprise, hard work, taking risks and trying to improve one's condition were recognised and encouraged. What incentive was provided by this Government to encourage hard work and enterprise among the people? On the contrary, he would make bold to say that, by and large, the policies of the Government in agriculture, industry and trade were such as to discourage enterprise, hard work and the capacity to take risks.

"The Prime Minister was against "radical rephasing" of the Plan. But, certainly, there was need for "radical rethinking" on the subject of planning. "Unless we get back to the correct plan of thinking, we shall invite further disaster to our economy."

In the words of our Finance Minister, Shri Krishnamachari, the economic crisis, the country is facing today has been built up in the plan itself. A plan based on imponderable assumptions without any factual basis and consideration of practicabilities of the situation must entail heavy wastages both in economic and human resources and invite economic crisis such as we face today.

Report on Plan Projects

The proof of all this wastage going on in the name of planning and development of the country has been furnished by the recent publication of the Balwantrai Mehta Committee on Plan Projects wherein the Committee has made a number of startling recommendations such as:—withdrawing all jeeps from the projects except one to the Lady Social Education Organiser, stopping all unnecessary publications, giving a higher priority to economic development than to Welfare programmes, abolishing district administration in favour of smaller panchayat samities. And one of the members, in his dissenting note, recommended the abolition of the Ministry of the Community Projects which is unnecessary and is the cause of so much national wastage and duplication of energy. Reviewing the report on the Plan Projects Shri B.G. Verghese writes in the 'Times of India' dated 4th December :—

"The revolutionary impulse that provided the motive force in respect of the programme during the early years has tended to evaporate over a considerable area. Community Development stands in danger of losing its intended character as a self-propelling people's movement. It is instead becoming a formula, an administrative process, a slogan. The disappointing reports received from the post-intensive development blocks (the completed projects) indicate failure on the part of the programme to generate its own momentum. There is a tendency to stagnate at a slightly higher level of development. The poor record of maintenance of existing facilities such as irrigation tanks is illustrative of this trend.

"The reason is evident. There has been too much haste; an over-burdening of inadequately qualified Village Level Workers; too much emphasis on glamorous amenities; undue reliance in many cases on the official and budgetary rather than the voluntary and human resources of the project area and an exaggerated desire for applause. All these and more need to be corrected".

The experience of the past does not warrant the hope of correction in the unrealistic and wasteful methods of our administration which are responsible for the present economic crisis.

From Political to Prestige Plan

Notwithstanding the optimism of our Prime Minister, the psychologically depressed and financially critical situation in the country does not provide congenial climate for the successful implementation of either the plan or the *Core* of the Plan. In the words of Mr. Masani, we will be inviting a greater disaster for the country, if our administration persists in this unscientific and wasteful planning. It is high time, the

leaders in administration save the country from further ruin and deeper economic crisis by crying halt to this unrealistic planning before it is too late.

For all practical purposes, so far it has been a 'Political Plan' intended to serve the ends of political consolidation of the party in power. Hereafter, bereft of adquate financial and other resources it is most likely to continue as a 'Prestige Plan' of the ruling party, with plenty of sermonising and exhortations of the leaders for 'self-help' of which there is no dearth in the county.

OUR PLAN IS CHALLENGED

By : **S. SITARAM**

MANY people in this country are aware of the unpleasant fact that India is finding herself in a tight corner. This is particularly true in the sphere of Foreign Exchange. India has been continuously drawing her sterling Reserves to pay for the enormous imports she has made during the past nine months. India's sterling balances amounting to Rs. 735 crores at the beginning of 1956 have suddenly dwindled to the level of Rs. 309 crores at the end of the last month. Indeed the situation is an alarming one. We have to maintain a minimum of sterlíng reserves as a backing to our internal currency. By a recent Ordinance this minimum has been placed at Rs. 200 crores. So it follows that as things remain we can withdraw hereafter not more than Rs. 109 crores. We are only in the 2nd year of the Second Five-Year Plan, and there are many items that have to be imported in the next 3 years involving considerable expenditure.

The Planning commission estimated that our foreign exchange gap will be of the order of Rs. 700 crores and this gap will have to be bridged by loans and gifts from other countries. In fact we have reached the stage wherein our Second Plan will not succeed unless we receive substantial foreign aid. Certainly this is a severe blow to the Planners.

We have to enquire why the success of the Plan is hanging in the mid-air and what are the stumbling blocks to its success? The first and foremost reason is that we do not have sufficient resources to convert our aspirations into grim reality. Hence in this sense our Plan is an ambitious one.

A glance at our Plan draft will show that only 50% of the Plan expenditure can be met by real resources available internally. Thus out of the total of Rs. 4800 crores to be spent during the Plan period Rs. 1200 crores will be covered through deficit financing, which is "money created out of thin air", + Rs. 800 crores through external assistance and a uncovered gap of Rs. 400 crores. That leaves Rs. 2400 crores to be raised within the country.

Such a plan is somewhat dangerous because should the Plan fail after having boosted the hopes initially, it will wreck the morale of the people. It should not be forgotten that communism attracts into its folds hungry and frustrated people.

Secondly the Plan does not seem to stand on strong foundations. In India where agriculture is the mainstay of the people the food position should be satisfactory. But actually the situation is far from that. Our food-front is very

weak and all our efforts should be in the direction of stabilising the food front. Our first Plan's chief aim was to this end but even after five years of planned approach, we find our food position is, to put it mildly, tottering. It is estimated that we will have to import three million tons of foodgrains to meet the shortage prevailing in the country. In some parts of India short-scale famines are hanging over-head and threatening to descend.

Another factor that is responsible for landing us in trouble in the foreign exchange sphere is that our exports have not gone up substantially, while the level of imports has registered sharp increase. The Balance of Trade and consequently the Balance of Payments are going against us and if this is to be stopped we must create a large export-surplus. That means we will have to export from our country additional items of goods and also push up the volume of goods that are being exported at present.

Our principal foreign exchange earning goods are tea, coffee, cotton and jute goods, leather and manganese. Recently we are facing stiff competition from other nations like Japan in our international market. So there is a state of insecurity in our present earning capacity too. To fulfil many of our Projects we have to import machineries and equipments of high value. In return we are able to give very little. That is to say our bartering ability is very limited.

It is a well known truth that finance is the life-breath of industry. In an underdeveloped country like India Capital is very shy. Added to this our government's tax-policy is preventing the capitalists from coming forward and starting new ventures. The industrial policy of the ruling party is also not conducive to enterprise since, the Government does not make it clear as to which of the industries will be DEFINITELY spared from nationalisation. It is but natural that people do not have an incentive to start an enterprise only to be snatched from their hands by the Government at a later date when it is proving profitable. The sudden act-somewhat hasty too of nationalisation of Life Insurance business only emphasises such a fear.

The prices of the imported goods also have gone up due to various factors. The Suez canal has sky-rocketed the price of some goods. If all our projects are to be carried through, the total outlay under the plan will well exceed Rs. 4800 crores.

We will have to visualise the problems that will arise if this stalemate in our foreign exchange position continues. Projects that are started and are half-way of completion will have to be abandoned if necessary equipments could not be imported. That means utter waste of money on such unfinished projects. The whole of the sterling reserves will have to be withdrawn to tide over the difficulties atleast temporarily. Such a withdrawl will not only take away the backing of our currency but will also hit Britain. The present day world does not allow closed economy and hence there will be a chain of reaction throughout the sterling area.

To solve all these difficulties we must try to be realistic in our approach. First there should be continuous drive to increase food production. Co-operative and collective farming should be encouraged wherever possible and methods of scientific cultivation should be spread increasingly. We must be able to attain self-sufficiency in food and also export it to other countries.

Our traditionally exported goods should be given special attention. Duties on them should be relaxed so as to help them get strong foothold in the foreign market and meet confidently any competition. Luxury and other goods of similar nature should be imported to the barest minimum and thus save foreign exchange. We must ourselves restrict consumption of goods produced in our country. We could then export them and earn foreign exchange. This is known as "self-imposed austerity."

It is to be clearly borne in mind that our foreign exchange difficulties will be, in the opinion of Mr. T. T. Krishnamachari, only for the next 18 months. We have to weather the storm during this period and hence we request foreign countries to help us.

Our American friends desiring to help Asians should remember this '—NOW or NEVER'. A race is going on between Democratic India and Totalitarian China. Both countries with their teeming millions are striving to raise the standard of living and to raise humanity from the mire of poverty. If India's Second Plan fails Communists will exploit the situation and try to make political capital out of the economic disaster. It is but natural that frustrated people will turn towards that camp which 'promises' quick results; but of course at a great price namely 'LIBERTY'.

FEEL THE EMERGENCY AND AWAKE

By: **MAHESH CHAND**

TWO Mehta Committees are likely to provide another opportunity to the Government and the Public to realise how our resources are being "under-utilised" in the mad race for paper money by demy-gods and petty-gods spread all over what may be termed the Second Five-Year Plan net. As these lines are written we are sure even the President of the coming Agricultural Economics Conference shall not fail to emphasize the criterion of judging efficiency by the use made of physical resources as against money resources.

I have heard it argued in the staff rooms of Economics Department and read in contributions made by wantlessness economists that while the cultivator must get his necessary economic overheads it is he who must make the greater sacrifice of physical resources particularly food stuffs-in order that the country may get economic development soon. Irrigation, fertilisers, seeds and helpful equipments are important economic overheads while 'food' is the price to be paid for these overheads so far as agriculturists are concerned.

But there is one thing which is missing in this picture of remedies. It is the price that must be paid by those who shall enjoy the 'Food' which the agriculturists will forego. The price to be paid by the non-food producing population, particularly that belonging to non-rural areas, is in terms of a non-economic factor. We have in the past called it 'Leadership and Character".

None, who is having a flow of money of physical resource in some shape by virtue of the political, social and administrative position that he holds, is apt to forego the position for fear of losing or decreasing the flow coming to him. This would be a justifiable propensity to the extent that the flow is still insufficient

to meet the "*requirements*" of such persons. We are of the opinion that 'requirements' whether they refer to a layman's family or a middle class household or an administrator's circle or a politician's group-admit of three fold classification. One part is necessary, another part is due to ignorance and a third is due to fashion and false pride in place. We agree that all must have food to eat, clothes to wear, a house to live in and a speed vehicle to speed in.

But in what forms and to what extent? It is no use merely laying down controls from outside. There must be an internal realisation and control from within. This is lacking at the moment with the result that what purchasing power should be allocated to production of one type goes to another undesirable channel and to feed fat the grudge of the "monopoly elements" in our production-sector. *The urge for quality and fair cost* is sadly lacking among the producers and distributors and it is given a set-back by the urge among 'some' to show off and to lead a life of high standard of living.

That explains the non-productive aspect of work done in the field of agriculture since 1951 and the increasing costs in the field of dams. Things never appear to a man engaged in the SFYP-net as involving national emergency, national prestige and national responsibility. We again urge that the need today is that all leaders, whether in the field of politics, administration or teaching, must lead as Simple a life as possible and do their best. So long as we do our best, it is immaterial how long we take to achieve a target. There must be set a wave of competition for doing the best.

I am reminded in this connection of doing one's best but being refused wherewithals and facilities to continue to do one's best on the ground that the best is not as quick as 'powers' want it to be. The incident related to a certain urban survey where some survey-organisation is in danger of being blamed for delay and thus hampering the Planning Commission in utilising the results of survey for fruitful porposes. One feels like laughing at the lack of realisation of the presence of the urge to do one's best and the hurdle created by refusal to pay the necessary purchasing power to the workers of the survey-organisation to fill their belly in time. One feels like laughing because inspite of the impending disaster on the food-front some demy-god decides to impress upon and use negative powers against those who are doing their best. Our submission, in using this illustration, is that our eyes should be on whether men are doing their best and in a desirable direction.

As our constructive suggestion to resolve the food tangle we will urge that the planning should be done at the village level. Stock must be taken at the village level-in villages for which present staff of official and non-official workers suffices-of the outflow and inflow and of how the outflow can be increased and inflow decreased particularly so far as food is concerned. As far as possible the inflow in regard to non-food items should also be met from within the village. We would suggest village-barter centres within the village for the purpose.

Another measure is to increase the economic overhead in the form of minor irrigation facilities and to improve the efficiency of the utilisation of existing irrigation facilities. In this connection it is an acceptable suggestion that in areas with irrigation facilities which are well on the road to prosperity more should be drained off in the form of increased irrigation rates.

But we must remind the powers that be that leaders must follow the Gandhian way of life of "simple living and high activity" if they want that the people may follow them and succeed in securing their own economic development.

FUTURE OF MANKIND

BIG CITIES, BIG INDUSTRIES, BIG UNEMPLOYMENT AND BIG BOMBS - ALL GO TOGETHER

By: **NAUTAMLAL C. TEJPAL**

BEFORE the end of the present century, unless something quite unforeseeable occurs, one of the three possibilities will have been realised. - Writes the famous philosopher Sir. Bertrand Russell. These three are :—

I The end of human life, perhaps of all life on our planet.

II Reversion to barbarism after a catastrophic diminution of the population of the globe.

III Unification of the world under a single government possessing monopoly of all the major weapons of war.

Let us first discuss about the third possibility. The establishment of a single government for the whole world could be possible by the victory of U. S. A. or by the victory of Russia. There is no chance to bring the World under a single government by peaceful means, as with the advance of the science of destruction, there is no advance of morals of the human beings. If the war is postponed it would be more catastrophic as every day the science of destruction is advancing rapidly. So the next war will mean the end of - if not of all the human life, then at least the end of all the civilized part of the world. This will bring the world to the second possibility of the survival of the barbarians in some remote parts of the world after the world war.

"Imagine the outcome of a modern war -each side in a position to destroy the chief cities and centres of industry of the enemy; imagine an almost complete obliteration of laboratories and libraries with heavy casualty rate among men of science; famine due to radio-active spray, and postilence caused by bacteriological warfare: would social cohesion survive such strain? Would not prophets tell the maddened populations that their ills were wholly due to science, and that the extermination of all the educated men would bring the millennium? Extreme hopes are born of extreme misery, and in such a world hopes could only be irrational. Ultimately the great States to which we are accustomed would break up, and the sparse survivors would revert to a primitive village economy". Says, B. Russell.

Can India do anything concrete to save the world from this catastrophe?. The problem in India is the fear not of a war - but of starvation. Many Indians are hoping and wishing for a war so that their miseries may end once for all. Plagues and diseases are controlled by the modern medical science, while wars and fear of war keep up employment and keep down the population. In America they are destroying surplus food, we are destroying surplus cows. At this trend of human thinking, very soon we may hear that useless and sick human beings are a burden to the land, they do not help in the production of commodities and so must be eliminated 'painlessly'.

Can our present planning and the method of production give full employment and reasonably high standard of living to all? The idea of every human being in perfect bliss could be in 'the freedom from fear' - the fear of hunger.

How can we remove this fear? Do we require all these costly plans, capital

goods, foreign technicians and foreign finance to remove this fear? Has any country which is highly developed industrially removed this fear from the hearts of its nation? Have the producers of H-Bombs reached or hope to reach such a state of things, where there is no fear? Then let us follow and copy them; otherwise let us use our own common sense to evolve a plan which could bring us this freedom from fear.

The most optimistic of our planners cannot say that we can give full employment or freedom from the fear of hunger and want to every individual. To finance our plan, we have to resort to all kinds of taxes and controls, and have to maintain a huge army of tax collectors. But when the taxes are abnormal and the people do not see the promised utopia coming, they turn out to be law breakers 'en-masse' by avoiding to pay their taxes for which they consult the income tax 'experts' and resort to bribing the tax collectors. So we are losing our moral standard even without gaining in exchange the higher standard of living and full employment.

The whole economy of our foreign rulers was based on exploitation. The system of custom tariff, land revenue, excise and railway freight were all adjusted to sqeeze the maximum benefit for themselves. They were interested in the wealth of our villages. They established ports and cities to spread their nets of exploitation throughout the country, and our merchant community was their agent. When the accumulated wealth of ages was slowly and systematically taken away during their rule, then they discreetly withdrew since there was nothing left to exploit. They knew that the old system of imperialism would not 'pay' any more.

Though the foreign exploiters went away, the big towns and ports remained intact, preying on the villages. Our big industrial towns have now got the advantage of protection from our national Government to exploit the villages in the name of national development of industries. No foreigners are allowed to encroach on the interests of our own vested interests. The foreigners have to be satisfied with supplying us with capital goods, mineral oils, aeroplanes and armaments. Pre-communist China and Russia were exploited by this system for centuries without actually imposing their rule on them. This is the civilized and modern method to get the cream out of our land with the co-operation of our capitalists and the National Government.

So the economy of exploitation imposed by the foreigners is still with us intact and has become a part of our lives. We try to sqeeze the maximum from the land without proper manuring, from the cattle without proper feeding, from the forest without new tree planting, and the Central Government, the State Governments and the local municipalities are all competing with each other to squeeze the maximum in taxation without the means of more production and more employment. So our land, cattle and people are becoming materially and physically poorer day by day. The farmer who remains idle for half the year is too poor to spend for the improvement of his land. The prices of all products have gone up and are going up day by day, as the cost of maintaining the idle and semi-idle population falls on the nation, and this huge cost is added to the consumers goods.

The Way Out

India lives in the villages. Ninety percent of our people do not require anything else except food, clothing and roof. We are producing food and shelter in our villages without any outside help,

but all the trade and transport is needed to feed the centralized cloth producing centres with cotton and coal and supply the manufactured textile back to the villages. The farmers have to sell their products so that they could get a few yards of cloth. They sell their grains, their oil seeds, their milk and butter even by restricting the use of the same for themselves and their children. Their families and cattle hobble on the starvation line, while the best products of their land and labour go out to feed the factory owners, factory agents all living in cities. Their best artisans and workmen too are attracted to cities, so the villages are left with the dregs of society as well as the dregs of the material products. Even the present craze of opening schools in every village has resulted in discovering talents among the villagers and transporting the same to the towns. So long as our present economic system remains, the village school will be a curse instead of a boon.

"Transport facilities, -Curse or a Boon"?

The main purpose of establishing the railways, steam ships and air transport is to keep them ready for war emergency. In order to move the armies quickly the British brought railways in India. The railways are released for the civilian use when there is no war, so that the cost of its maintenance could be realized and would not fall on the Military as in the case of idle army in peace time. At present our air services are heavily subsidised by the Government so that it could be utilized for war at a moment's notice: as it had been done during the Kashmir emergency in 1948.

Further, during the peace time our rulers were utilizing the railways in such a way that their factories in England were fed by our raw materials produced in our villages; and our villages were supplied with the goods manufactured in England. The freight rates to and from ports were much cheaper than the freight between two inland towns; e. g. it was cheaper to send goods from Bombay to Delhi than from Indore to Delhi which is half the distance. So the village industries died a slow death and the forced idleness of the villagers became a burden to the healthy economy of the villages. Thus the railways served the purpose of a war machine during war and it became a means of destroying the village economy during the peace.

Now the place of foreign products has been taken up by our town products and the town industries do not allow the village industries to revive inspite of Independence. We are aping the Western type of economy based on mechanisation. Villagers are copying and craving for city pleasures and facilities in their villages-which means that they want more money to buy such pleasures at the sacrifice of simple life.

Now let us imagine that the whole of our mechanized transport is dislocated, due to earth-quake in our coal mines region, mineral oil import is disturbed due to war or some natural causes. Then what would happen to our villages? Naturally they cannot sell their agricultural products, since there is no more cheap and long distance transport by rail or road; ultimately they will be forced to feed their families and their cattle by the best product of their land. They will not grudge to feed the poor and the disabled persons of their villages. They will also maintain the school teachers out of their surplus land products and instead of producing commercial crops for export, they will produce things that they need first for their own requirements. The exchange of products will be limited to the available facility of bullock cart transport. The cows, the mother of bullocks. would not be a

burden to the land, they will allow the heifers to suck their mothers to their bellyful. Their children and members of the family could have as much milk and butter as they want, since the same could not be sent to distant cities due to non-existence of rail transport. The best and the most intelligent people would move to villages where food is best and plentiful, at prices next to nothing. The health and happiness of all the villagers would improve. At present the people are deteriorating physically and morally and the cattle are also decaying due to poor feeding; all this would stop immediately when the present transport is dislocated.

Let us see what we shall lose by such a calamity or boon. Villagers would not get the present facilities of factory products such as cloth, sugar, mineral oils, tin sheets, vegetable ghee, cigarettes, tea etc, so they will have to grow their own cotton and use the spinning wheel and hand-loom for producing their own cloth. Cloth, of course, they shall have to use sparingly. They will have to use the brown sugar to sweeten their lives and for the so-called poor man's solace they would grow their own tobacco weed. The circumstances would compel them to plan their production according to their need. And to enjoy the life they will have to develop their own dramas, folk dances, folk and devotional songs to replace the degenerating cinema. So the process of progress will reverse to the benefit of the villages which is the real India. Centralized industries and cities will start disintegrating, and the villages and the village industries will revive.

But we cannot expect such a luck of natural calamity to our cheap transport. So if the above logic is true and appealing let us plan it, simply by increasing the cost of freight by rail and motor transport so much so that the transport of agricultural products and the factory products becomes prohibitive if not impossible.

We have seen the diabolical effect of the modern machine age on our village economy. Gandhiji knew this and evolved a method to save us from becoming a part of the huge machine. But we have failed to take advantage of the Gandhian plan, and are running after the mirage of mechanism, which would ultimately destroy the spirit and soul of our nation. The philosophy of the village revival by the spinning wheel and cottage industries has not been accepted either by our people or by our planners. So we must evolve a plan for the revival of villages on which the prosperity of the whole nation depends. This plan is to tax our transport system, steam, diesel and electric power in such a way that the villages could revive by themselves automatically.

We need not blow up our factories and railways for this revolutionary plan, but only simplify the method of taxation, and the revival of the villages will follow by itself without disturbing the lives of the people and the established mechanised industries.

A major part of our central revenue is being spent for the army. We need not disband the army or reduce the budget of the same. But the finance required for the army should be taken from the mechanised transport only. Since the railways and aeroplanes are mainly for army use during the war, let this transport pay for the idle army in peace time by imposing the excess cess on transport. We should do away with the complicated system of taxation, and in place of sale-tax, death duties, wealth tax, etc. a simple tax on the mechanized transport and the annual license-fees on factory horse-power

should be levied. Neither the people nor the Government suffer by shifting the burden of taxation from a complicated method to a simple fool-proof method of taxing the horse-power and the mechanised transport. The Government would realize the same amount of revenue it requires for defence and administration and the public will be relieved of the botheration of the complicated taxes.

Further the transport tax and the tax on horse-power are such taxes that no one can evade them the way they do in respect to other taxes. At present in Sudan the necessary finance required by the Government is mostly raised from the income of rail transport. The British rulers there had found the climate too hot and unhealthy for their British Staff, and they could not get the staff from among the natives who were too backward. So they simplified the tax collecting machinery by imposing high freight rates, while the import tariff and other taxes were nominal or nil. And by following this method they were able to run the Government with the minimum of staff and there was no scope for bribery or tax evasion.

By making the transport expensive, the villages will have food, milk, butter, oils almost as free as water and air, -which is the ultimate aim of an ideal society. Further the villager will be compelled to utilize his spare time in producing cloth and other requirements in his home, by means of simple impliments.

We have read the famous story of Robinson Crusoe and how he enjoyed life by improvising himself out of practically nothing on a deserted island. He only missed civilized company and family life. But who would not envy his richly adventurous life ? By withholding the modern mechanized transport, our villagers will have the chance of planning for themselves the full life, like that of Crusoe, but with the joy of the family and community life, and each village will be like an independent power-house of energy for self-development. And since the cost of living in the villages will go down due to plentiful supply of food-stuff and raw materials, the cost of manufacture by hand with simple impliments too will very well compete with the products of town factories where the cost of living will be very much higher.

Farming is a pleasant job, only if it is for contented living—producing enough for one's own requirement and giving the surplus products in exchange of the services of carpenter, potter, smith, weaver, teacher and cobbler. It becomes a drudgery if it is for commercial exploitation. To save drudgery and to make the farming a commercially paying concern, we shall have to introduce labour saving machinery. Our textile mills have ruined the hand spinners and weavers creating a vast army of starving unemployed. And now if the farming is also mechanized and is based on economy of commercial exploitation, it will create unprecedented upheaval in the country. But, if the farming in only for the contented living, no one will be tempted to keep more land than is necessary for his own requirements and there will be an automatic Bhoodan of the extra land.

Men and cattle must be fed daily and their power must be utilized to the full by giving them work throughout the year. The right to work for a simple living should not be denied to them by the labour saving machines. The Government should not function in such a way as to deprive men and animals of their rightful quota of work and wages. It is characteristic of the materialistic mentality that non-human factors like

big factories, big dams, powerful weapons of war etc., are held essential, while the human beings, their thoughts, preferences and requirements for living-in short the psychological factors - are considered as unimportant and secondary.

'The individual is degraded into a mere instrument; he has become a human material. The normal ends of human aspirations vanish with such a viewpoint. Instead, the material mentality raises "naked power" as a goal in itself-one of the strongest illusions to which men can succumb-' says Dr. Albert Einstein.

Inspite of our Independence, we have adhered to the same system introduced by the British rulers. The place of England has been taken by our big cities and their factories, and the exploiters now have brown skin instead of white. We have accepted the modern mechanized method of production for articles of necessity. We may introduce mechanization in our farming too. But then what of the millions of people who will consequently be thrown out of employment? Then we must follow the western method of absorbing the unemployment in the development of armament industries, in big army and eliminating the surplus population by liquidating them as cannon fodder-or by killing them before they are born.

Unemployment is the biggest menace to peace, while low production per person is no threat to peace. If our people and the villages are thrown on their own resources, they will give up their idleness and produce all that they require in their villages.

Many believe that due to the colossal destructive power of H-Bombs, no one will dare to start a total war. But fear never stops war or crime. A century ago petty thieves were hanged for minor offences and yet the criminals were not afraid of the hangman's rope, and the robbery and horse-thieving were going on even at the risk of their necks. Fear will never stop wars. Only one would like to strike first before the other fellow strikes him down. The vast multitute of our semi-starved people are praying for H-bombs to fall on them to end their miseries once for all.

War means the destruction of centralized industries, big cities, aerodromes, railways and big river dams. So ultimately our villages will have to improvise for themselves.

Atom bomb is not an accidental creation of scientists, but when big cities and big war industries came into existence, powerful weapons like A & H-Bombs became necessary to destroy the same of the enemy in a war. If we have no centralized big industries and big cities, no one is going to use H-Bombs costing millions of rupees each, to blow up harmless little villages worth a few thousands of rupees in all.

Due to constant fear of war many nations are feverishly manufacturing powerful weapons of war at a huge cost. Either we must follow them to safeguard our big cities and industries, or we must decentralize our industries as feverishly as others are manufacturing the means of total destruction. Then only we can enjoy the freedom from fear.

An empty belly cannot be enthused to suffer to protect his country against outside attack, nor could he be helpful in the implementation of our Five-Year Plans. He is not prepared to protect the vested interests of the capitalists or the high officials who have ignored his plight. This was shown glaringly in Indo-China, where the workers were rendered idle. The modern factories and the colonial

power had made their simple impliments useless, and their hands idle, and these idle hands eagerly snatched the guns offered by the communists. Though Viet-Nam was a national Government, it was the Government of the vested interests and the centralized industries and cared very little for the poor unemployed. So all these unemployed workers residing in the territory of Viet-Nam deserted them and joined the enemy. And inspite of the best organised French army and the colossal American arm help, the poor, uneducated and untrained army of Viet-Minh defeated the powerful French army. The employed workers in industries have the weapon of strike in case of need, but the unemployed have no such weapon, but they become an easy tool in the hands of the communists during any national emergency.

So, in conclusion, we must accept that the high level of unemployment as well as the centralized industries are the chief causes of wars. And no international high-pressure peace efforts can stop the coming war and doom, unless we make fundamental changes in our economy which is neither the economy of the industrialised capitalists nor that of the communist countries. Both these systems are based on exploitation with the help of machines, which brings in its train craving for luxurious living, bribery, high cost of administration, hunger and unemployment, unhealthy city slums and need of A & H-Bombs to protect or destroy the established system of exploitation.

India is the only country which can show the true path to peace by adopting the system of simple living and development of the village industries making them self-supporting and prosperous. This way has been chalked out by Gandhiji since long. And if we can prove its success the whole world will follow us sooner or later. But, if we will ape the western methods of industrialisation, we must follow them in every step including the manufacture and use of A & H-Bombs.

A REVIEW OF THE SECOND PLAN

By : **Prof. S. V. RAMAYYA**

IN recent times we find great financial difficulties especially those relating to foreign exchange being encountered in the implementation of the second plan and this placed grave doubts even in responsible quarters about the prospects of its success. In this article we propose to discuss the problem in its proper perspective to facilitate clear thinking.

"The first five-year plan was instrumental in bringing about a marked improvement in levels of production both agricultural and industrial. It has also initiated a number of structural and institutional changes. The plan has evoked widespread public interest and enthusiasm and there is a new and insistent urge for rapid development all over the country." Thus remarks the progress report of the First Five-Year Plan. It has also claimed that the national income increased by 17.5 percent and the per capita income recorded an increase of 10.5 percent. National income has greatly increased in 1953-54 and 1954-55 mainly as a result of an increase in agricultural output. From 1953-54 there was a downward trend of

agricultural prices which necessitated measures to support them and a distinctly upward phase started in July 1955. In 1953-54 there was a peak production of 68.8 million tons of food grains and in 1954-55 the food grains output was 66.8 million tons. The output in 1955-56 stood at 64.8 million tons (that is) about 11 million tons above the production levels of 1949-50. The purpose in giving these figures is to show how the Planning Commission has become highly optimistic in formulating the second plan on a wider scale in vew of the success of the first five-year plan.

The Second Plan has aimed at spending Rs. 4800 crores in the public sector and Rs. 2400 crores in the private sector. The Planners expected that the prices would not rise. A great deal of rise in prices has occured both in agricultural and manufactured commodities. One of the surprising features about the Second Plan is the suddeness with which the crisis had come. The food-grains position has been stated incorrectly in the Second Plan. Later on the Commission realised that the increase of production of food is the base on which the success of the plan depended. So it has suggested an increase of 40 percent and the States have agreed to 24 percent increase in food-grains and 28 percent increase in agricultural production. The total food production is to be raised to 80.5 million tons (that is) by 24 percent instead of by 15 percent as originally fixed.

One unfortunate feature was that even though irrigation facilities for 6.3 million acres existed only 4 million acres were irrigated. The water that has been impounded at enormous cost has been left unutilised. One of the distressing features about our agriculture is that our productivity per acre is not only low compared to Western countries but even some of the Asian countries. The upward trend in agricultural prices is an alarming feature of the present day problem. The commercial banks have failed to reduce advances against food-grains. Only recently they seem to co-operate with the Reserve Bank. The advances in August 1957 were higher than in August 1956. The I. M. F. and the World Bank were of the view that monetary devices such as making money dearer and a general restriction of bank credit were exceedingly important in arresting inflation.

It is reported that food production was of the order of 68.59 million tons in 1956-57. A heavy import programme of 3.5 million tons and unchecked rise in prices reveal a paradoxical situtation of poverty and distress amidst plenty. Recently the drought condition has resulted in further deterioration. Last year India received 3 million tons of American surplus grain which was supposed to last for 3 years but which was almost consumed already. Recently Canada has offered a gift of 1¼ lakhs of tons of surplus wheat worth 7 million dollars. This would serve not only to save foreign exchange but also to meet the internal food shortage.

The assumptions of the Planners have gone wrong. The rate of saving is expected to rise automatically from 7 to 11 of the national income which has not happened. The planners have assumed that agricultural production-rise providing a surplus which would battle with the new money created by deficit financing. Further the whole economic system seemed to be much more sensitive to higher taxation. In particular heavy taxation had proved to be inflationary contrary to the precepts of arm-chair economists.

Another difficulty of importance facing the Sceond Plan is the mobilisation of

domestic resources. The small savings have not increased as assumed. We do not understand why the Planning Commission assumed that the States would raise the substantial revenues through taxation when the first Plan experience had demonstrated their unwillingness or incapacity to raise the needed resources.

The pressing difficuly causing concern to all is the deterioration in the balance of payments position. The Planning Commission had anticipated a gap of Rs. 800 crores only. But Mr. M. K. Vellodi the Secretary of the Planning Commission had revealed that we face now a gap of Rs 1600 crores in the balance of payments. No doubt these difficulties are difficulties of growth and not of stagnation. But we must remember that "We must have growth that does not endanger stability and we must have stability that does not throttle growth".

The great amount of deficit in balance of payments is attributed to many unexpected factors. The expenditure on food import has been "considerably in excess" of that in the plan. More imports of machinery, raw materials and manufactured articles both for the public and private sectors took place. Imports were estimated in the plan to be around Rs. 783 crores in 1956-57, but they have risen to 1076 crores. One of the importtant reasons for this increase is due to a rise in import prices due to Suez adventure and heavier expenditure on defence which were unforeseen. Our sterling balances have become dwindled and they stood now at Rs. 310 crores.

It is estimated that even to implement the core of the plan (that is) Iron and Steel, Power Projects and tronsport, we require a minimum of Rs. 700 crores of foreign exchange. How are we to get so much of resources? There is no easy road for that. One of the ways is to increase our exports and R. B. report recently remarks that "a uniform reason for the worsening of India's balance of payments position in the second quarter of this year was lower exports rather than increased imports." This must be an eye-opener to us not to be complacent about the exports.

Our Finance Minister T. T. Krishnamachari had recently visited U. S. A., CANADA, BRITAIN & WEST GERMANY and it is revealed that there is sympathetic understanding and appreciation of India's economic policies. We trust that this sympathetic understanding would be converted into concrete help. We require a loan of 500 to 600 million dollars from the U. S. A. Whether we can get such an amount as a loan is doubtful. Britain is having her own difficulties and in order to save sterling it had to raise the Bank rate to 7 percent. So we cannot expect from this source. So far as West Germany is concerned it seems some of the Private firms are willing to accept deferred payment for the machinery and goods supplied. Recently, U.S.S.R. had granted a loan of 500 million roubles (Rs. 60 crores) at 2½ percent rate of interest.

This is welcome feature. The World Bank must play its part in providing loans. India happens to be the biggest country having planning on a democratic basis and her experiment is being watched with keen interest by the whole world and India needs desperately foreign aid to implement the minimum programmes which are vital for her stability.

Here in India Political Revolution preceded Economic Revolution unlike in Western countries and we cannot ask the people to wait for eternity to get their minimum needs satisfied. Hence the efforts of the other countries should be

diverted to helping India for nowhere in the world economic development took place without foreign aid except in U. S. S. R. It is also necessary for the American private firms to invest in our country. Our Prime Minister has assured them reasonable facilities and conditions.

Even the international labour organisation chief Mr. Morse remarks, "The disparity in living levels between the people of Asia and those of the rest of the world has widened in the last few years and the closing of the gap is the main task for the future". There are three main factors limiting development efforts in Asian countries to overcome the poverty; inflation, lack of external finance and the inability to mobilise domestic resources for economic reconstruction. Economists like A. G. Ronoon N. Kalder, Colin Clark, Roy Harrod state, "While commodity prices are on an average back to the level ruling before the Korean War, the price of manufactured goods has risen substantially. So that each ship load exported by underdeveloped countries now buys considerably fewer manufactured goods. It is surprising that these countries are running into exchange difficulties and their development programmes are being Jeopardised. It is not always realised that a comparatively small fall in commodity prices is equivalent in its effect to a cut of millions of dollars in aid to under developed countries. The governments on both aides of the Atlantic will weigh carefully the possible political results of their present economic policies" We need add little to the above statement.

It is for the Government of India now to see that prices of food grains do not rise and they are pegged down to a reasonable level. The price situation has continued to cause concern. The Indian Economy exhibited signs of the growing strain imposed by a high rate of investment which was partly deficit financed. Dr. Pick considers that the Indian currency has become the sick currency as prices rose by 14 percent in one year. We do not accept the views of Dr. Pick. At the same time we cannot be complacent. "The plan targets both for the public and private sectors need to be vigorously and urgently reviewed. It is equally important to see that the money spent is spent wisely and effectively. As Mr. Leon H. Keyserling, the U. S. Economist remarked". It is not enough to have good goals for the future unless there is a constant and efficient method for measuring the degree of progress towards these goals. This is essential so that programmes and policies may be changed if they prove inadequate.

Further Projects for industrial expansion and food supply for domestic consumption and exports, for steel and power projects need to be fitted together like a musical symphony. Otherwise projects good in themselves may be in conflict rather than in harmony".

In a democratic planning the responsibility of every individual is equally great. We cannot throw the blame for any failure on the Planning Commission or the Government. We have to play an important part in building the economy of our country. We must emulate the great example of the Japanese and German people who have built their war ravaged countries with admirable zeal. For, all plans ultimately depend on the efforts of the people. Work and work alone leads to success. We implore our people to rise to the occasion so that we can have a prosperous and happy INDIA.

PLANNING AND PROGRAMME PLANNING

By: **Dr. J. C. SRIVASTAVA**

"A well planned programme is to the Extension Worker, what a compass is to a seaman".

Planning and Programme planning are correlated to each other. The programme is a plan of action and programme planning is a policy statement by a broad outline. A plan needs to fill in all the details within the frame work established by a policy statement, so that it may be used most effectively in developing the programme. Let us consider the planning first.

What is Planning :—"Planning is the adoption of scientific attitude and methods and the application of scientific knowledge and engineering with the help of experts to the solution of human problems of social security, social justice and social welfare. It involves the rejection of individual competition and group rivalries. It adopts the rule of a common plan, embodying measures for the security and welfare of the whole nation by assuring to the individual a higher standard of life and opportunity".

The idea of planning is not new as it is co-existent with life. Suppose we have to plan for tree plantation. In this we have to plan for the following items:-

1. Soil.
2. Preparation of soil.
3. Selection of plant.
4. Irrigation.
5. Protection.
6. Season.
7. Labour.
8. Implements.
9. Money.
10. Plant protection.
11. Manures, etc.

Thus for a small thing like planting trees we have as many factors. There is relationship between ends and means. Planning is also co-existent with rational action. If one step is mistaken everything goes wrong. So the concept of planning is not new but it has been taken up in right earnest in our country only recently.

Ours is essentially an agricultural country. Most of our wealth is derived from agriculture and so is our national dividend. Agriculture forms our staple industry and the backbone of our economy. The bulk of our people derive their sustenance from agriculture and for a long time to come we will have to depend on agriculture not only for our economic progress but for our very existence. Thus, it was thought necessary to set-up a plan for intensive rural work which would reach every farmer and assist in the co-ordinated development of rural life as a whole. A number of preliminaries and schemes with regard to development have been formulated. The principle of pooling has been adopted and is being carried out. Much thought has also been given to the kind of work required to meet the many-sided needs of villages. The Fiscal Commission set up by the Government of India in 1949 had observed :—

"In our view the greatest need at present in India is an Extension Service with the object of bridging the gap between research and the practices of producers similar to those which have been found so valuable in U. K., U. S. A. etc."

The basic idea underlying the Planning movement is intensive development of rural life as a whole and is based on a consideration of limited resources available to Government over a specified period of time. In order that the limited

resources available may be used in as large a measure as possible it is necessary in the initial stages to plan the programme of development. Substantial progress is possible only when the programme is well planned.

What is Programme Planning :—Now when we are thinking of planning we have to shape our plan in such a way that it may fit in with our daily life and facilitate the achievement of our national objective. Programme must be purposeful and a correct plan of programme must form the corner stone of the entire fabric of Planning. According to Douglas Ensminger, planning programme is meant "the analysis of (1) needs immediate and long term, (2) decide what to be done and over what period of time, and (3) formulate programmes of action based upon the assumed resources." To explain the above, the programme planning will be based on the following fundamentals :—

(1) What is the existing position.

(2) What is the need or problem.

(3) What is the end product to be aimed at.

(4) What is to be done.

(5) Who is to do what.

(6) When it is to be done.

(7) What methods to be followed.

(8) What are the expected results.

(9) Evaluation–To what extent has objective been achieved.

(10) Reconstruction or modification of programme.

To work effectively existing situation may be taken as "central" or base and every step should be checked to find out whether the progrmme is being carried on effectively. The purpose of programme planning is to discover needs and to plan systematic courses of education designed to meet such needs in an effective manner. Thus the Programme Planning may be defined as "a statement of objectives, based upon an analysis of the existing situation and the needs of the people in the area involved. It includes a listing of problems that must be solved in accomplishing these objectives and of the proposed solution."

Principles of programme planning :—Just as a school must have its curriculum, a teacher has its break-up of study courses and a class has a daily routine through which they all accomplish their certain specific educational objectives, so is the case with programme-planning in which programmes are implemented through plans of work in which broad objectives are broken down into specific job, with goal established for accomplishment through activities carried on over a definite period of time.

According to A. H. Maunder of Agr. Division F. A. O., the following principles have been established in Programme Planning :—

(1) In Programme Planning all the available facts and figures of the programme should be taken into consideration.

(2) It should be based on felt needs of the people for whom the programme is planned. The urgent concern and widespread interest be given first consideration.

(3) It should be comprehensive.

(4) It should be flexible to meet long time situation, short-time changes and special emergencies. Without flexibility the programme may not in fact meet the needs of the people.

(5) It should be educational and be directed towards bringing about improvement in the ability of people to solve their own problems, individually and collectively.

(6) It should be arrived at democratically through the participation of lay people, the entire sponsoring staff and others who can contribute.

(7) It should be oriented to the existing condition and level of the people.

(8) It should be planned to utilize only those resources available to the people of the area.

(9) The Objectives should be clearly defined at all levels. According to Paul Leagans in his "Extension Objectives", the objectives of planning must be clearly determined and periodically reviewed in the light of progress and changed conditions.

(10) It should provide self help and teach people to help themselves.

(11) It should be carried on by well trained personnel effectively supervised.

(12) It should use organization as a tool to accomplish objectives. There are many formal and informal groups in every community. The programme should find and utilize those groups whose objectives are in line with those of programme's objective. In planning new programmes, care should be taken to avoid conflict or duplication with groups already active or interested in the activity.

(13) It should be so planned that it can be evaluated periodically in terms of objectives.

(14) It should make maximum use of voluntary local leaders. Local people need to take a major responsibility for the programme's operation, if it is to be made most effective.

(15) It should be achievable considering such factors as personel, finances, time and facilities. Attempt to solve too many problems at a time weakens the programme. Care should be taken to select a few important problems in any one year which may give promise to immediate satisfaction to the people involved.

(16) It should provide a clear guide or plan for workers in conducting an educational programme.

(17) It should be self perpetuating and should have a lasting benefit.

(18) It should be self-generating and should not depend on artificial intrinsic merit.

It is in the field of programme planning for and with the people that the development programme has had its greatest success. The response and willingness to participate fully and effectively in Planning and carrying out programmes to improve rural life is a convincing proof that the villagers want a better living.

Effective programme planning requires time. Such time should, however, not be considered "spent" but time invested.

Who is to Plan :—All who are affected by the plan should participate directly or indirectly in its preparation. Planning self-help programmes implies that the primary responsibility for programme planning rests with the village people themselves. It is the people who have to be initiated to prepare a plan. Now the question comes how to make a plan.

How to make a plan :—For instance we have to take up an agricultural programme of saturation of wheat C 13 variety. In this before we take up the work we will have to consider the following steps:—

(1) Requirement—allocation of priorities between competing needs.

(2) Technical guidance.

(3) Manpower.

(4) Materials-supplies, according to yardstic.

(5) Money.

(6) Measures for people's participation.

(7) Executive details–fixing up of responsibilities—who will do what.

(8) Phasing—Break up of target for each section and sub-section and also for each unit (family).

(9) Precautions against pitfalls, and probable failures etc.

Allocation of priorities should be made on the local felt needs, the need which may really be a need and of which they can be made conversant of in telling the use and benefit of wheat C 13. For this we will need social education of the people, by meetings, group discussion etc., so that they may feel the need for it. So we have to know as to how much will be required. The requirement should also include for demonstrations etc. Thus we have to take maximum utilisation of resources to the optimum result.

For planning we have to consider all the minor and major aspects of implementing a programme, which can be done as below :—

(1) Know all the facts there are to know about the problem.
(2) Arrange these facts in order.
(3) Study a way to give these facts in groups and sections.
(4) Write a plan or outline the plan.

Pitfalls in the programme :—To meet the urgent food problem of the country the Community Development Plan was launched. Exphasis was given on agricultural improvement, with lesser attention on other aspects of general village improvement. We have achieved sufficiently more towards our agricultural problems but even then the plan finds many hard critisism. Why? Because the programme was not well planned satisfying all the necessities of life. Food, shelter, clothing, health, education and employment all have to be incorporated in the plan in such a way that it may spread its reaction all over. According to D. Ensminger, 'Little direct benefit of the programme trickles down to the landless labourers'. We have to grant the weakness of the development programme in all the above and many other aspects. Ensminger further states,' "The present large percentage of idle manhour in the village is a national loss India can ill afford. Furthermore idle hands mean idle minds and idle minds are not constructive minds...... People must be trained to convert means of living into better balanced living, with full account of man's emotional, spiritual, intellectual, social and material needs. It is the development of total man that is lacking".

Limited attention has been paid to rural youths.

How to start programme planning step by step :—

In programme planning the following steps may be taken :

(1) In programme planning the extension worker and the people together agree on the programme.

(2) The extension workers should search out the local lay leaders and develop leadership to obtain their support.

(3) A formal talk on approach should be made with the key leaders to know their basic needs, how they look upon their situation, problems they feel important, and getting their feeling about coming to gether, realising their own problem and building a programme to solve their problems.

(4) The leaders may be assembled together for discussion and study on their problems. The extension worker may act as consultant.

(5) A committee composed of representatives from each group may be formed and the programme may be decided jointly. This Committee should also have representation from various development departments of Government viz. Agriculture, Animal Husbandry, Public Health, Co-operation etc.

(6) Form sub-committees to tackle each problem and further study and analyse the problem.

(7) Acquaint people with the programme that has been worked out for the development of their area including long time objectives in view.

(8) Fix up the target, area-wise, item-wise, sector-wise, "Tola"-wise, and family-wise.

(9) Follow up the plan using the same as a basis for developing annual plans of work.

(10) Until the people themselves recognize their problems it is well to confine the development work in a particular field with a view of creating interest in the problem.

Conclusion:—The programme planning, therefore, should be comprehensive and should include problems of interest to all members of the rural family and all social-economic groups.

Effective use of local people in programme planning requires considerable patience and educational effort. When starting development work in a new area, it is important that the first programme attempted must be successful and fill a need recognised as important by the people involved. The secret of successful programme planning is co-ordination of programmes of all extension workers working in different fields of development and leading farmers to consider a common problem and plan a co-operative action.

The aim of programme planning is not merely to provide for ample food, clothing, shelter, health and recreational facilities in the village but more important than all these material improvements is the realisation that what is required is a change in the mental outlook of the people, instilling in them of an ambition for higher standards of life and the will and determination to work for such standards.

GRAMDAN -- VINOBA'S WONDER CURE

By: **C. V. VENKATACHAL**

ACHARYA Vinoba Bhave, the originator of the wonderful movement of Bhoodan in India has gone a step forward and conceived the idea of Gramdan—Gift of the village.

Much has been said and written on this subject, both for and against, and it has become necessary to assess the exact merits of this movement in so far as it can solve the economic ills facing the Indian village today.

Let it be clearly understood first of all, that Vinoba Bhave like C. R. will never embark upon any experiment unless he is thoroughly satisfied as to the practicability of any new idea. He started his historic Bhoodan movement to solve the land problem facing the country and to achieve fair and equitable distribution of the land among the landless. He wanted that the land should belong to the tiller. Not only that. Any land

reform measure should lay the foundation of gramraj—a contented village republic based on true Gandhian ideals.

His Bhoodan movement rightly enough, began in Telangana, that communist infested territory in the heart of the present Andhra state. Vinoba claimed that his Bhoodan movement would solve the land problem without any bitterness to anyone. According to him forcible seizure of land from the landed would create bitterness worse than the land problem itself. He collected what little was offered to him, whether by the rich man or by the poor, and began distributing it to the landless.

There was a spate of criticism against Vinoba at that time. Many high placed persons argued that Vinoba's Scheme perpetuates fragmentation of holdings and would create so many unforeseen complications. But Vinoba was not to sway from his well-thought out path. He began convincing even the communist that his aim was what they themselves wanted to achieve. And so it went on, in some areas even with State patronage. Laws had to be enacted to legalise what Vinoba achieved. The world was surprised at his success and rightly called him "The God who gives away lands".

But did Vinoba land where he ought to? Did he receive the unqualified support of the governments in his mission ?

Vinoba soon recognised that by Bhoodan alone, the realisation of the Gandhian dream of village raj will be unduly delayed. So he conceived the idea of gramdan–gift of the village.

What is this mysterious scheme ? Under this plan the entire lands of the village become the property of the village. The right to hold lands vests only with the community as a whole—exactly as in a communist society. The village leaders sit together and chalk out a programme of how to cultivate the land. Two courses are open to them. Either they may cultivate the entire land as a collective farm or they may allot a piece of land for each family in the village on the strength and composition of each family. In both the cases the owership of the land does not belong to any individual but to the community. Vinoba claims that gramraj administration is quite different from the communist system. While the communists do not allow individual distribution of land for the family cultivation, Vinoba's scheme does recognise this right. Thereby, the freedom of the individual is recognised without detriment to the community interests.

Lands under Vinoba's scheme are redistributable. In case where any family grows in size, lands in the village are realloted once in five or six years by the panchayats. The Government has to give all possible facilities to the village Panchayat and not to any individual.

Let us assume for a moment that Vinoba's Gramdan movement becomes successful. Then all the village disputes automatically disappear. No longer the poor villagers have to fight for land rights whether in the courts of law or revenue administration. Tax evasion by farmers will cease. The village earns a force which would be astonishingly powerful in deciding village planning in any future set-up of India. Villages, which are presenting a thorny problem to the government in any field of development for lack of co-operation and the like, become easily accessible to the government. A truly panchayat raj will then have been established. Food production will increase and the State may save crores of rupees on this account alone.

Some practical difficulties have been foreseen in Vinoba's plan. They are the problems of distribution of the produce in a community venture, slackness of the farm workers, non-interest of the farmers in making the soil fertile for fear of the redistribution of their plot of land and the like. I interviewed Vinoba Bhave on 7th November and asked him about it.

He said, "I do not think these problems are so serious. They do not present any complication. I have thought over all these before launching the Gramdan movement. Once the village becomes one unit and the panchayat starts functioning, these difficulties will disappear. Given proper understanding there is no reason why there should be any difficulty at all..."

Nothing is impracticable for India which won her freedom by peacefully pursuading the British and winning their friendship and not courting their enimity. This is a land where sage Vashista's 'bramha tapasya' stood against the physical might of Viswamitra and everything is in the realms of possibility.

At the recent Gramdan Parishad held at Yelwal in Mysore, leaders of important political parties like the Congress, P.S.P., Communist party agreed in principle to the Gramdan movement of Vinoba Bhave and called upon the people to co-operate in his mission at the same time promising their party help also.

It must be seen how far these political parties will extend their unstinted co-operation to Vinoba Bhave, for that alone decides the rapid success of his mission. Let us all hope that wisdom will dawn upon our political leaders to make this mission of the greatest of Gandhi desciples a success. There are only two ways open to our villages-Gramdan and happiness or status quo and misery.

ECONOMIC THOUGHT OF MAHATMA GANDHI

By : **Prof. J. S. UPPAL**

PEOPLE know Gandhi as a Mahatma, a political agitator who brought Independence to millions. But Gandhi was also an Economist in his own sphere and he put clear cut Economic Thought before us.

Conception of Economics.

The very conception of Economics is different to Gandhi.

Economics as understood by Westerners aims at material progress without paying any regard to the ethical, and moral development e. g. according to the traditional Economics, labour is just like an ordinary commodity as a factor of production. Wages should be paid according to its productivity. If labour is crippled or sick he must starve, as during his period of sickness, his productivity is zero. This according to Gandhi is immoral.

Gandhi regards such Economics as disregard moral and sentimental considerations, as wax-works which though life like, still lack the life of living flesh. So to him, Economics that hurts the moral well-being of an individual or a nation are immoral and therefore sinful.

According to Gandhi, therefore, Economics should further materialism to that extent only, that it does not retard social and ethical straits of life.

The key words of Gandhian Economy are (i) Decentralised production and equal distribution of wealth (ii) self-sufficiency of Indian villages; equal distribution of wealth brought about not by the cruel process of extermination but through the hearts of the owners by pursuasion and appeal to the better sense of man. He emphasised on the self-sufficiency of Indian Village as (i) He wanted to destroy the middlemen exploiters and thus to enable the cultivator to have full price for his produce (ii) He wanted the goods locally produced to be consumed locally so that the tiller of the soil may also taste the fruits of his toil. He did not want that tiller should produce fruits, milk and butter, but he should take only dry and rough bread with a pinch of salt.

In this way, Mahatma wanted to give to the teeming millions the justice that is their due.

Mahatma Gandhi was pained to find that a very small minority of people in the cities was proving as a white elephant for the down trodden exploited multitudes in the villages–that symbolise India. He presented a plan for protecting the villages from the greedy eyes of the urbanists.

Gandhi was an ardent believer of decentralization which he considered to be the panacea for the solution of that most difficult Indian problem–I mean–unemployment. Being a realist and having an intuition into the Indian conditions, be realised that the Western mode of Industrial Organisation can hardly be workable to a society of people who can hardly find the means to earn their livelihood. He was fully conscious that every single step towards mechanization would unevitably lead to the reduction of whatever little employment we have.

As we all know that unemployment is a great evil, it is a poison, it corrupts the society and weakens the political fabric of a country. It creats devil, it turns good man into bad, it changes an honest worker into a criminal. It encourages dishonesty, glorifies falsehood and makes one blind to its good side. It is difficult to expect truth, nobility from a person who cannot have two square meals a day and who cannot provide food or a doze of medicine to his sick wife and ailing children. The fire of hunger consumes the noble virtues of a father, duties of a man and a husband. Gandhi used to say openly that the latent faculties of man must be employed in a creative way or else they will certainly assume destructive proportions. The worst danger of unemployment to Gandhi was that it made of a man psychological cripple, leading to serious type of degradation and demoralisation. An unemployed man developes an inferiority complex and can never face society squarely to its face.

Gandhi saw that decentralisation would create much larger employment opportunities and would give something to every individual even though at a slightly lower standard. It was in implementation of this idea that he conceived of Charkha as an humble instrument of supplementing the meagre income of the the farmer. He attached so much importance to charkha that he was prepared to stake everything for it.

People started making a fun of charkha business. They thought that with Mahatma charkha it had become almost an obsession and that whereas others get intoxicated with wine, Gandhi was enchanted with classical (Ghoon Ghoon) music of his odd looking charkha. People ridiculed Gandhi and wondered as to how the (Takli) in a charkha would stand against the canons and guns of the British Imperialism.

But little did they realize that future would show that history would be on the side of Gandhi and that only with this charkha will this magic man defeat the mightiest of all the Empires of History. So confident was he of the effectiveness of his weapon that he went to the extent of claiming charkha as a sure weapon for the potitical emancipation of this unfortunate land. Because he found in charkha and other handicrafts the means of displacement of foreign goods which were the fundamental reason for the continuation of British Imperialism. He challenged us all "Use *Khadi Today* and the British quit to-morrow". What a tragedy, that we in this country should have got a man of that calibre and yet not followed him and delayed our Independence by a considerable period in hankering after foreign dishes and dresses.

But, it must not lead us to misunderstanding that Gandhi wanted to throw our large scale Industry into the deep sea. He merely wanted that the large scale industry should not displace and in that process destroy small scale industry.

He did accept the need of developing large scale industry particularly in those sectors of National Economy where human hands are helpless. But, he was determined to eliminate the evils which are the natural by-products of a capitalistic Factory System. e. g maldistribution of wealth, child labour and the enjoyment by the few of the labour of the many.

He could not accept wide gap that exists between high and low incomes. He thought that the society divided between the very rich and poor living at sub-human level of life, is based on the foundations of sand. He wanted the narrowing of this gap by putting ceilings on incomes. He even went to the extent of suggesting to Lord Irvin-the then Viceroy of India-the reduction of his high salary. He set a personal example in this connection by adopting the simplest possible way of living.

In India, the problem of mal distribution of wealth, arises out of the unequal possession of land. The bulk of it was in the possession of a few absentee land-lords while millions of poor tillers were at the mercy of these heartless people. He had the inner conviction that land ought justly belong to the tiller and that others have, according to no principle of human justice, right to take away the *Sweat* of his labour.

Such problems are not the exclusive property of India. They exist everywhere on earth. For its solution, the Western thinkers under the leadership of Karl Marx and Lenin would suggest the extermination of the exproprietor. The annihilation of not only capitalism, but also the capitalist. The apostle of peace, on the other hand, would like to destroy the capitalism without destroying the human being who is a capitalist.

To Marl Marx, end justify the means. So long as the end is praiseworthy, means, however inhuman, are justifiable. In Russia millions were done to death for the sake of equality.

Mahatma, however, thought that means do enter into the ends. He believed that the method of violence would perpetuate the instinct of the hatred in the masses and would do a lasting harm in the development of our culture-a culture which is based on love and harmony so far. He suggested that the solution of land-lordism and capitalism lay in Bhoodan, and Sammpattidan. The traditional Economist found in Bhoodan the danger of the cancer of fragmentation of holdings, but Mahatma dismissed this argument by saying :—

"There is more fear from the fragmentation of human hearts than the fragmentation of land. Fragmented land can be easily consolidated later with mutual good will and co-operation; but the fragmentation of heart due to economic inequalities, is full of dangerous possibilities".

This, to my mind is in brief the contribution of the man, who built a completely new Economic Philosophy.

OVER - SIMPLIFYING THE FOOD ISSUE

By : **S. KRISHNA**

AT last the Food Grains Inquiry Committee has done a "window-dressing job". The Food Grains Inquiry Committee's report has further piled up the existing plethora of economic literature on food policy without giving much insight into the anatomy of hunger of the millions of this land. This is in part a failure of the Committee. Those who mooted the idea and framed the terms of reference of the Committee are equally responsible. In the considered opinion of the Food Grains Inquiry Committee, "the food problem is likely to remain with us for a long time to come". Well, there is nothing new in this statement. On the contrary, it further deepens our pessimism about the problem and our incompetency.

However, we may with reason feel a little enthusiastic about the public service which the Committee has rendered in further enlightening certain aspects of the food problem within such a short time.

Any examination or assessment of the food shortage cannot be considered as complete until we reckon the plight of the most vulnerable section of the society and of areas which frequently threaten human existence either by way of drought, flood or scarcity. Logically therefore, the Committee comes to an important conclusion in that that the annual import of two to three million tons of foodgrains is an imperative necessity for some time to come.

It was but natural for the press to highlight this important recommendation more because of its controversial nature. The Minister for Community Development is of the view, in his counsel to the Planning Commission, that the food production could be increased by fifteen million tons during the Second Plan period. The other wing, that is the Ministry of Food and Agriculture, favours the lower estimate for which it has now received the support of the Food Grains Inquiry Committee. The Committee's however, is not the last word on the subject.

At this stage of controversy, some realism is required. A distinction has to be made between the target capable of realisation and the target which has a mere probability. At best, on this basis we may regard the low figure of ten million tons as a "do-to-die" target and the higher figure as a level which we should further try to achieve. It just cannot be said how much time, ink, paper and money has been wasted in discussing this particular aspect and unless something fresh crops up, we might consider the issue as closed. Since it is the problem that threatens the bare existence of millions, it is time that we finally make a jump for practical work and while we work to produce, we do

not lose sight of the fact even for the split of a second that we would not under any circumstances, run any risk with the people's food supply. If this is the correct diagnosis, we must at the very outset accept the Committee's word of making allowance for an annual food import of the order of two to three million tons.

It is common knowledge that the fluctuating output and varying surpluses of foodgrains create at times prices which can throw the whole cost structure out of gear and "even impede the progress of the planned development. Against this background, the Committee's recommendation for some form of a limited, compulsory procurement of foodgrains assumes considerable importânce. We should require over a million tons of foodgrains every year for meeting the needs of the highly deficit areas and vulnerable groups. Besides, fairly large quantities are required for creating buffer stocks. The price of rice in the world market has considerably gone up. On top of this we are in woods for foreign exchange. It is, therefore, necessary to resort to some form of compulsory procurement to ensure that at least some six hundred to seven hundred thousand tons of rice are procured from surplus areas of the country.

For the procurement of rice, the Committee has suggested alternative schemes. The Committee is more inclined to prefer a system that cordons off certain surplus rice growing areas with the Government as the sole buyer. The Committee is of the view that the whole of Orissa and Punjab, besides certain southern districts of Madras State to be brought within the fold of the scheme.

As an alternative to compulsory procurement, the Committee has suggested that levies on producers or on major traders may also to be tried in the surplus regions. Procurement or levy either by State Government's own agencies or the existing agencies of the Food and Agriculture Ministry have too many complications. To make the task easy, the best thing is to entrust the job to the States concerned.

To achieve the Committee's major aim of a comparative stabilisation of food prices, the Committee recommends market operations based on regional studies in prices and output. In its terms of reference, the Committee was directed "to make recommendation to ensure a level of price which would provide the necessary incentive to the producers with due regard to the interest of the consumer and the maintenance of reasonable cost structure in the economy". The emphasis in the terms of reference was clearly on the incentive aspect of the food prices.

Since it is argued that the only ultimate real solution of the food problem is increased food production, incentives are necessary to encourage the cultivator to produce more. Proceeding on these lines the Committee lays stress on the question of ensuring remunerative level of prices to the producer. But the Committee has not borne in mind the irrelevance of this suggestion at this stage of the food crisis. What the Committee has suggested is essentially a long term measure.

The real problem at present is how to bring down the price to a reasonable level. This question has not been faced by the Committee at all. On the contrary, to our wonder we find that the Committee has rather taken a complacent view of the present price strength while discussing the need for controlling the price. It seems to be more concerned with the price disturbance due to the regional disparity or the pressure of

scarcity pockets rather than the general level of food prices. From this, it is, therefore, clear that the Commlttee is not in favour of subsidising the consumer price of food save in cases of vulnerable group of population as a relief measure in scarcity areas. It is a sad commentary that to the Committee the costliness of food is not a general problem but only a local problem for certain particularly unfortunate areas.

The question now arises as to why the Committee has not attached due importance to the problem of general increase in food prices. Is it because it strongly feels that the 'Socialist Pattern of Society' that the country has adopted demands socialisation of wholesale trade in foodgrains at one stroke under the present circumstances.

Further in the Committee's recommendations for the creation of a Price Stabilisation Board as a 'Shock-Absorber' against the abnormal impact of local over-production, drought or crop failure is to be found the rub that it possibly wants to create work for a Food Grains Stabilisation Organisation. Whatever be the intentions of the Committee, no amount of brain-scratching gives us a clue to the connection between socialissing the wholesale trade in grains and the problem of the general rise in food prices.

THE PROBLEM OF FOOD

By : **FAZLUR RAHMAN**

FOOD is the primary necessity of a living being and the problem of food for all living beings was born along with their birth. In the early stages of human civilization hunger was an individual problem ; every person used to take care of himself and his small family but as time passed on, it became a social problem.

Population growth in recent years has been very rapid and food production could not keep pace with the rapid rate of population growth. This state of affairs brought afresh into the minds of the people the gloomy forebodings of Malthus whose doctrine envisaged the extinction of humanity due to hunger.

Growth of population is governed by the political and economic conditions prevailing in a country. If our scientific progress comes to a standstill, and the present rate of growth of population continues, then of course humanity will be threatened with extinction. But science gives us new tools to fight the antagonistic forces of Nature and its progress is doubly rapid in stringent times. And it is due to the timely intervention of science in our affairs that we exist today, otherwise we would have vanished from the face of the earth due to hunger.

When we start exploring the causes of hunger, we find the confirmation of De Castros verdict who has enunciated, "All the demographic black spots are spread in those parts of the world whose people are under-nourished and thickly populated." Doubleday has pointed out that "whenever a species or genus is endangered, a corresponding effort is invariably made by Nature for its preservation and continuance by an increase of fecundity or fertility."

From these it is evident that the problem before the world is not of over

population, but of under production. De Castro has found an indirect correlation between the protein intake and birth rate of nations. If we accept the protein intake figure as the nutrition index for that nation, we find a further confirmation of Doubleday's law because countries with lowest nutrition index have the highest rate and vice versa.

The table below will show the details :-

Country	Average Protein intake	Birth rate
Formosa	4.7	45.6
Malaya States	7.5	39.7
India	8.7	33.0
Japan	9.7	27.0
Yugoslavia	11.2	25.9
Greece	15.2	23.5
Italy	15.2	23.4
Bulgaria	16.8	22.2
Germany	37.3	20.0
Ireland	46.7	19.1
Denmark	59.1	18.3
Australia	59.9	18.0
U. S. A.	61.4	17.9
Sweden	62.6	15.0

In the war with Nature man has been the conqueror and Nature has always stood vanquished. It is due to his conquest of Nature that he has risen to the withering height of his prowess from the pygmy position he occupied in the cycle of evolution. The possibilities of increasing our food production are unexplored and unlimited. The cultivable area of the earth is estimated to be 16 billion acres, and the actual cultivated area is about 2 billion acres. By cultivating the 16 billion acres, the world can support four times the present population on a rational diet at the present level of production. Besides our level of production can go up considerably as is evidenced by the gap between the average yield and the best yield.

At present we have just a glimpse of the possibilities that the future holds for us, and to many of us the ideas penned below would appear to be fantastic scientific romances, but they will do well to remember that most of the present day wonders of science originated in the minds of the scientists as possibilities which appeared to others as nothing but the flight of imagination.

Chlorella, a fresh water alga can synthesise fats and protein in a nutrient solution of simple salts and carbon-dioxide. The drymatter of chlorella has an average of 50% crude protein and 25% lipoids and it can yield 500–1000 times more food/unit area than ordinary agricultural crops. It has been calculated that an acre of chlorella culture can yield 40 tons of drymatter containing 20 tons of protein and 3 tons of fat. De Çastro estimates that a single factory can produce sufficient protein for 3 million people and fat for ½ million people. Some yeasts are also capable of synthesising proteins in a nutrient solution in the presence of carbondioxide. During the second world war the Germans were preparing protein by cultivating yeast on home produced beetsugar.

The sea holds great hope for the future. It occupies nearly ⅘th of the earth's area and a day may come when cultivation may spread on the waters of the oceans. Even now the sea has got more vegetable matter than the land, and some are a fit source of vegetable food. Some of the marineflora can be used for food without any treatment, while others will have to be processed to remove obnoxious and undesirable taints and such materials as silica and crude fiber. The supply of fish from the sea is only about ten million tons, and this can be increased indefinitely.

The forests are as yet an untapped and unexplored sources of food and on exploration they must yield wonderful articles for human consumption. *Bromelia laciniosa*, a denizen of the forest has got

fifteen times more calcium than milk. The oil of a palm *Mauritia flexuosa* contains 5000 I. U. of vitamin A per c.c.

All these facts go to reveal the fabulous treasures, Nature has in store for us. We have no reason to be pessimistic about the future of man. What is required at the moment, is a better understanding of the problem before us, and a realistic approach with a sincere desire to solve the problem. We have to be conscious of the colossity of the problem and approach it with full confidence. "Man's science is great but man himself is still greater".

RICE CULTIVATION IN UTTAR PRADESH

By : S. K. CHOPRA

Introduction :—

RICE is an important Food Crop in this Country. About 30% of the annual cultivated area comes under this crop. It occupies a unique position in the Rice-World also, 73 million acres out of 210 million acres are in India. This is the largest acreage under rice in any country in the World, with an annual production of about 22 million tons of rice. But the yield per acre is almost the lowest in the World with the result that inspite of the large acreage, grain production falls below our requirements. The following table will give an idea about our position in the World.

Name of the Country	Area in million acres	Yield of clean rice per acre in Lbs.
India	73.5	772
China	47.7	1549
Indonesia	12.4	1034
Thailand	8.5	888
Japan	7.6	2350
Philipines	4.6	703

A scrutiny of data given below further reveals that the situation in Uttar Pradesh is worse as compared to other States in the country. In this State early paddy occupies about 62.0% of the total paddy area which is also responsible to some extent for an over-all low yield per acre.

State	Area %	Production %	Yield of clean rice per acre in Lbs.
Bengal	30.1	33.0	1024
Madras	13.6	18.0	1133
Bihar	13.3	11.6	823
Uttar Pradesh	9.9	8.2	800
Madhya Pradesh	7.9	6.2	800
Assam	7.3	6.9	1008
Orrisa	7.0	5.7	—
Bombay	3.3	3.8	1177
Others	7.6	6.6	—

There are many causes for such low yield, some of which are as follows :—

1. Lack of irrigation facilities.
2. Lack of proper manuring.
3. Cultivation of low yielding varieties.
4. Old methods of cultivation.
5. Losses due to pests and diseases.

Irrigation is a single factor responsible for higher yields but the picture is very gloomy in this respect which is evident from the following table :—

State	Total Area 000 acres	Irrigated area 000 acres	Percentage of irrigated area
Bengal	22,255	1,824	8.2%
Madras	7,884	7,703	77.9%
Bihar	9,579	3,593	37.5
Uttar Pradesh	7,765	557	7.2
Madhya Pradesh	5,896	1,155	19.6
Orrisa	5,023	1,254	24.9
Bombay	1,866	204	11.0
Punjab	977	787	80.6

Every one of the factors mentioned above which are responsible for low yield is, however, remediable. And experimental results indicate that yield can appreciably be improved. The higher yields obtained on Government Farms and the creditable yields of 6,000 to 8,000 lbs. of rice achieved by progressive cultivators in recent crop competitions by practising intensive methods of cultivation show the potentialities of increasing rice yields.

Average yield of paddy obtained at Baitalpur Sugar Mills' Farms this year is about 41 maunds per acre with early ripening variety N. 22. This is all due to improved methods of cultivation.

Some recommendations are made in this paper with special reference to the eastern districts of the State which, it is hoped, will go a long way in stepping up the yield per acre.

Summary of Recommendations :—

1. Rice crop is raised here almost without any irrigation. But land commanding irrigation will protect the crop in the event of mansoon failures. Medium to heavy soils are suitable for its cultivation. Sandy soils should be avoided for this crop.

2. Deep ploughing is not required for this crop. Wherever irrigation facilities are available, grow green manure crop and turn it into the soil before planting. "Wet land puddler" can be used profitably for puddling the field and it will cut down the expenditure of this important operation.

3. Rice is sown in three ways :—
   (a) By broadcasting.
   (b) Behind the plough in lines.
   (c) Sowing in nurseries and than transplanting in the fields.

Early paddy is usually sown here by broad-cast method. It has been observed that transplanted paddy gives 1½ times yield higher than that of broadcast paddy. So wherever resources are plentiful, this method should be encouraged. Seed rate recommended per acre is as follows :—

Transplanting	-15	-20 lbs.
Broadcast	-50	-60 lbs.

For transplanting 1/12th acre of nursery for an acre of crop is sufficient and 30–40 days old seedlings are fit for transplanting in the field. For early varieties a spacing of 4″x 4″ with 2-3 seedlings per hole and for late varieties a spacing of 6″×9″ with 2-3 seedlings per hole are found to be best. About 15 labourers will be able to plant an acre in a day.

Early planted crop gives better yield and the following sowing period is recommended :—

Early	May–June
Late	June-July
Boro	Dec.–Jany.

4. There are 7,000 varieties available in the World and about 4,000 are known in our country. Only those varieties should be grown which are recommended by the Agriculture Department. A list of the same is given below :—

Early	Medium	Late
Ch. 10	T. 3	T. 9
T.136	T. 21	T. 17
T. 43	—	T. 23
N. 22	—	T. 36

Different varieties are available to suit different growing conditions such as Dudhalchi and Jaisuria for flooded areas. Sowing good seed of improved and high yielding varieties will definitely increase yield by at least 10 to 15%.

5. Water is the life of this crop. Usually one irrigation for early varieties and one to two irrigations for late ones are enough for getting higher yields. But unfortunately the crop is raised here

without any irrigation and it is entirely dependent upon the mercy of rainfall. Only tubewell or canal water can meet the irrigation requirements of this crop. Area with 25″–40″ rainfall requires irrigation and where there is rainfall above 60″, no irrigation is needed. Availability of water to the crop at the times of planting, a little before flowering and ear setting stages, is very beneficial to it.

6. In importance, manuring comes next to water. About 50–60 lbs. Nitrogen per acre is sufficient for getting good yields. Addition of potashic fertilizers is not required because our soils are not deficient in this ingredient. A systematic plan for manuring is essential. Super-phosphate is beneficial to this crop, so 100 lbs. of it should be applied at the time of growing green manure crop i. e., in the month of April–May. If green manuring is not possible due to lack of irrigation facilities, apply 20 cart-loads of farm yard manure to the soil before planting. One month after planting, apply a top-dressing of 150 lbs. of Ammonium Sulphate. It may also be added here that organic matter in the soil plays a very important role in raising this crop.

7. In broadcast paddy, weeds are found in abundance which require their removal at a proper time. In a transplanted crop, two weedings are required, first after one month of transplanting and second after an interval of 20 days of the first weeding. This is practicularly true with early transplanted paddy. A rice rotary weeder is now available in the market for inter-culturing the crop. Top-dressing of Ammonium sulphate should be done after first weeding.

8. In this tract practically no pest or disease is found of economic importance. The following diseases, but of minor importance, are found attacking the crop.

(a) Blast disease of rice (b) Brown eye-spot disease (c) Foot-rot (d) Stem-rot.

Growing disease resistant varieties and treating the seed with some fungicides such as Agrosan G. N., Perenox etc. will minimise the incidence.

The common pest available are (a) Stem-borer, (b) Swarming caterpillar, (c) Gall fly, (d) Gandhi bug, (e) Rice-hispa, (f) Grass hoppers, (g) Leaf hoppers.

Spraying with 0.2% or dusting with 5% BHC or DDT will affectively control most of the pests. It has been calculated that total loss due to pests and diseases only is 5–10% of the entire crop.

9. Crop will be ripe for harvest when the ear is nearly ripe and the straw is still slightly green. Harvesting time for early paddy is Sept.–Octr. and for late one it is Novr.–Decr. Six labourers can harvest one acre and two pairs of bullocks and two labourers can finish threshing and winnowing of the above harvest in a day. The yield of dry fodder is usually double the grain but it can vary with the variety and the method of cultivation.

THE PROPHECY OF EROSION.

By : **FRANCIS V. THADIKARAN**

EROSION is the partial or complete removal, by torrential rains or high winds, of the earth's thin cover of life-giving soil. It is an alarming manifestation of the apparent lack of harmony and co-ordination between human society and its natural environment. Erosion leads to the steady impoverishment of the most valuable natural resource, and it is of paramount importance to prevent the plundering of the precious heritage of land.

In the arid and semi-arid regions of our country that are in general subject to sudden downpours of heavy rain, the problem of soil erosion assumes greater importance, as it heralds uneconomic agriculture. Apart from natural agencies like wind and water run-off, this 'rape of the earth' is caused by human actions like deforestation, monoculture, over-grazing, neglect of drainage and other unscientific cultural practices. The eroded slopes and silted rivers which are by no means rare in our country, bear ample testimony to the magnitude of man's ruthlessness in destroying nature's vegetative cover.

As Professor Radhakamal Mukerjee points out in "The Rural Economy of India", (1926), behind the decadence and disappearance of mighty empires and glorious civilizations we are being made aware of the over-recurrent phenomenon of soil-exhaustion. Civilization in its onward march have deserted fertile valleys when they no longer were able to yield crops necessary to maintain human life. He cites the historic examples of the flourishing civilizations of Egypt and Babylonia which are now buried beneath vast deserts by soil depletion which also largely contributed to the exhaustion of Rome, the proud conquerer of the world. In this context, the only country which enviably preserved her most ancient civilization is China, because she has solved better than any other nation the problem of maintaining the fertility of the earth by her unique manurial practice.

The same is the case with Japan. As Sir Nicholson (1907) says, "Japanese field cultivation is remarkable, it utilizes every accessible square foot of soil and tills that soil with the greatest thoroughness....Not a waste corner is to be seen, nor is any space taken by hedges and wells". The whole agricultural practice of China and Japan can be summed up in the words of F. H. King (1927) that, "almost every foot of land is made to contribute material for food, fuel or fabric. Everything which can be made edible serves as food for man or domestic animals......... Whatever cannot be eaten or worn is used as fuel. The wastes of the body, of fuel and of fabric are taken back to the field ; before doing so, they are housed against waste from weather, intelligently compounded and patiently worked at through one, three or even six months, in order to bring them in the most efficient form to serve as manure for the soil or as feed for the crop."

What about India? Erosion is no stranger to her. Her agriculture is already struggling under the strangle hold of erosion. An estimate made by the Government Forest Research Institute Dehra Dun, shows that approximately 300 square miles of fertile land are being converted into desert every year in India —that so much of our land is constantly deteriorating by erosion, needs no proof. And we cannot bite our lips and keep

quite gaping at the bleeding heart of the nation; in blissful forgetfulness of the future. We have to save our mother land before she is covered by the fatal shroud of eroded soil.

In fighting erosion, the importance of soil conservation cannot be over-emphasized. The principle of conserving soil in order to keep it fresh and fertile for future generations is no less important than maximising production itself. Soil erosion is a national manace and if this colossal waste of the precious basic capital of land accumulated patiently through countless centuries is effectively prevented, the firm foundations for a lasting superstructure of successful and progressive agriculture will have been well and truely laid.

In the face of rapidly increasing population with ever-increasing dependence on land for livelihood, and more so in the absence of corresponding development in the secondary and tertiary sectors coupled with the disappearance of forests and pastures and the neglect of drainage and conservation, the prospects of agriculture are far from bright. Therefore, a comprehensive programme of soil conservation so as to harmonise and co-ordinate the natural environment to the many and manifold needs of human welfare is necessary for the all-round development and expansion as well as the secure preservation and continued maintenance of the productive efficiency of the soil.

The methods of soil conservation differ according to the nature of the terrain and the magnitude of erosion. The popular methods commonly resorted to are :—

(1) contour bunding; (2) contour trenching; (3) afforestation; (4) gully plugging; (5) terracing; (6) listing or scooping; (7) contour cultivation; (8) strip-cropping; (9) rotation of crops; (10) mixed cropping; (11) drainage; (12) flood control; and (13) planned land-use for soil conservation.

Of these, *planned land-use for soil conservation* is found to be the most effective panacea for the anathema of erosion. This implies 'treating land according to its needs and using it according to its capability'. The essential and fundamental principle in conservation is the balancing of the present uses and income from land against future uses and income so as to get the most out of it over the whole period. Therefore, land-use planning for soil conservation means the re-arrangement and pre-arrangement of the environment for its most effective use by both present and future generations. A sound land-use plan must propose to introduce those uses of land and cultural practices which will preserve or restore the productivity of land to ensure larger and more stable returns over a long period of years. It must also eliminate the serious wastage of natural resources by misuse and prevent unwise agricultural settlements on sub-marginal lands.

The first and primary requisite for a good land-use plan to achieve the effective conservation of natural resources, is a comprehensive soil survey followed by an economic classification of land with special reference to the degree of accelerated erosion by various causes in each land class, so as to equip the farmers with a thorough and precise knowledge of the different factors which constitute the cultural land-scape of the country. Land-use planning in essence, is determination of the optimum use of every acre of land in a country. This optimum cannot be fixed for ever. Any land-use plan must accordingly be dynamic and not static, flexible and not rigid, capable of being adopted to varying conditions not forgetting the ever-changing needs of society.

The only country which has made tremendous strides in this direction is the United States where the Soil Conservation Service established under the Department of Agriculture, formed many Soil Conservation Districts from 1937 onwards and by the year 1947, there were 4.45 million farms in 1889 Conservation Districts with an area of slightly more than one billion acres. Soil Conservation Districts are still being created at the rate of about 20 per month. During the decade 1936-1946 (acocording to the census of 1935, 75 percent of crop lands in the U.S.A. was in need of conservation practices) the farmers built 670,000 miles of terraces, applied green manure on 169 million acres, planted legumes on 56 million acres, applied 155 million tons of limestone and 13.1 million tons of phosphate, farmed 79 million acres of inter-tilled crops, and 24 million acres of close-seeded crops on the contour, 55 million acres were strip-cropped, improved the pastures on 33 million acres, and constructed 679,000 dams and reservoirs for stocking water, erosion control and irrigation. As a result the average yield in the conserved areas had increased by 3 percent every year from 1939 to 1943 and by one percent annually during the last decade. These figures reveal the supreme importance of conservation as well as the methods by which effective conservation can be accomplished.

Conservation plans therefore, if widely applied will result in an improved pattern of intensive land-use by maintaining soil fertility in tact over long periods and adjusting its utilization to the natural and economic factors. The expanded output of present agricultural production admittedly comes from 'robbing the fertility bank' through heavy cropping. A sound land-use plan for the scientific cultivation of 'nurse crops' and 'robber crops' one after the other will go a long way in conserving arable land.

Therefore, the principle of conservation farming should be the foundation on which a constructive agricultural programme for our country should be built as the initial step to achieve the ideal of a Welfare State—a healthy and prosperous India with a happy and contented people. In fine, it may be well said that *conservation* is the first and final word in our strenuous endeavour to wipe away the depressing clouds of pessimism overshadowing the agricultural sector of our country to-day, and to save our children and our children's children from the mighty scourge of a future FAMINE which is THE PROPHECY OF EROSION.

ESTIMATION OF THE TYPE OF LABOURS

By : **A. N. SHARMA**

Introduction :—

LABOUR is a very important item in producing any thing either it be agricultural or industrial. Our Science may progress to any extent but such time would never come when we can totally replace human or animal labour by Mechanical labour. Labours can be classified in many ways as agricultural or industrial, human or animal, permanent or temporary etc. Here we are concerned only with agricultural and specially with permanent and temporary labours.

We have based our study on the data which we have taken from B. R. College, Farm which is in Bichpuri Village, seven or eight miles away from the Agra City.

The area of the Farm is 433 Acres and enjoys the facilities of Canal, Tube-well and Pump Irrigation. It is a well mechanised Farm possessing the following equipments :—

Items	Numbers
Tractors with accessories	3.
Offset Disc Harrow	2.
Cultivators	2.
Pumps	4.
Seed-drills	2.
Tube-wells	3.
Other machines	8.

The purpose of this article is to know, how much permanent and temporary labour should be kept in order to run the Farm smoothly. The study is based on three years data.

Labour engaged :—The Farm is operated by both type of labours permanent as well as temporary ones. The percentage of permanent ones is 22.13 while the rest 77.87% is of temporary labour out of the total requirement.

The following table shows the requirement of permanent and temporary labour in different months of three years.

Months.	Temp. labour percentage of yearly requirements.	Permanent labour p. c. of yearly requirements.	Total per cent of the yearly requirements.
	(Col I)	(Col II)	(Col III)
July	7.13	1.74	8.87
August	3.90	1.87	5.77
September	5.70	1.80	7.50
October	8.70	2.30	11.00
November	8.78	1.92	10.70
December	3.96	1.91	5.87
January	5.27	1.23	6.50
February	4.30	1.70	6.00
March	7.03	1.89	8.92
April	11.93	1.64	13.57
May	5.55	1.25	7.80
June	5.62	1.88	7.50
Yearly (Total)	77.87	22.13	100.0

From the above table we find that there is a great variation in the utilisation of temporary labour (3.90-11.93) in comparison with permanent ones (1.23-2.30). In the month of July the percentage for temporary labour is 7.13, and in August 3.9. In September, October, November, December, January, Februry, March, April, May and June the percentages are 5.7, 8.7, 8.78, 3.96, 5.27, 4.30, 7.03, 11.93 5.55 and 5.62 respectively. The Highest requirement is in April 11.93% and lowest in August 3.9%. But in case of permanent labours, we find slight variation which ranges from 1.28%-2.3%. The highest percentage is 2.3 which is in the month of October and the lowest is in the month of January. 1 23%.

How much permanent labours :—Now the question arises how much permanent and temporary labour should be kept or in other words proper combination of permanent and temporary labour.

The following table gives the average number of labour Units required in different months for the last three years.

Months	Temporary	Permanent	*Units of labour	P. C. to total yearly requirements
July	2724.0	677.0	3401.0	8.87
August	1664.3	681.6	2345.9	5.77
September	2171.9	673.3	2855.2	7.50
October	3412.9	734.4	4147.3	11.00
November	3342.3	716.6	4058.9	10.70
December	1704.3	700.0	2404.3	5.87
January	2055.0	700.0	2755.0	6.50
February	1644.0	700.3	2344.3	6,00
March	2143.9	700.0	2843.9	8.92
April	4393.0	621.7	5014.7	13.57
May	2554.6	716,0	3270.6	7.80
June	2179.7	712.0	2891.9	7.50
Yearly.	30000.2	8332.9	38333.1	100.0

* 1 Unit=8 hours working of a labour.

From the above table we find that in the month of August, the utilisation of labour is minimum 2345.9 or 2346 Units of human labour (5.77% of the yearly requirements). Therefore atleast 2346 units of a human labour or more is utilized in every month. We can therefore suggest that the number of permanent labours should be such, that can provide at least 2346 Units of labour monthly. From the table it can also be seen that at least 8332.9 units of work is done by permanent labour annually i. e. 694.4 units monthly. This work is done by 24 permanent labours. If 2346 units of work are to be done monthly by permanent labours, then the number should be increased from 24 to 78. By increasing the number of permanent labours to 78 scarcity of hired labour at the time of sowing and harvesting can be minimised and at the same time the utilisation of permanent labour will be to the fullest extent in those months when comparatively less operations are to be performed or in other words there will be no such period throughout a year when permanent labours can sit idle. From expenditure point of view it will be more economical if number of permanent labours can be increased from 24 to 78. By the following table we can realise the fact.

Annual requirements of labours and cost of operation ;

Labours	Units	Rate per unit	Cost (Rs.)
Temporary	30,000.2	Rs. 1-7-0	43125.0
Permanent	8332.9	Rs. 1-4-0	10416.1
	38333.1	Rs.	53541.1

The table indicates that for 30000.2 units of operation performed by temporary labour Rs. 43125/– are spent and for 8332.9 units of work performed by permanent labours. Rs. 10416.1 are spent. Now if 2346 Units of work is performed by permanent labour monthly, then it comes to 28152 units annually. Then if 28152 Units of work is done by permanent labourers out of the annual requirements of 38333.1 units, the rest 10181.1 will be done by temporary labourers. Let us now examine that how this change in utilisation of permanent and hired labourers effect the cost of operation.

Labour	Units	Rate per unit	Cost (Rs.)
Temporary	10181.1	Rs. 1/7/–	14635.1
Permanent	28152.0	Rs. 1/4/–	35200
Total	38333.1		49835.1

The table indicates that the annual cost of labour will be Rs. 49835.1 if our suggested change is materialised. There will be an annual net saving of (Rs. 53542.1 – 49835.1) = Rs. 3706.0 in the account of expenditure on labour.

Conclusion

We therefore, finally conclude that the number of permanent labour should be increased to 78 so as to minimize the scarcity of hired labourer in the peak season and to economise the expenditure on labourers.

We are not of the opinion that the above method is the only way or the most appropriate and perfect method in estimating the type of labour. It can be modified according to the need and conditions. But certainly we can say that by this method we can reach to a very significant conclusion.

COUNSELLING IN FARMING

By: **Kr. NARAIN SINGH**

AGRICULTURE is a technical profession and cannot be persued efficiently without guidance of a technician. Those who are carrying it on under non-technical supervision are meeting disappointments and are giving an impression that farming is not a profitable occupation. They also believe that a villager who has been doing cultivation for many generations needs no counselling. But they should know that the experiments and researches done during the last half a century in India and in the foreign countries have changed the old practices considerably and unless improved methods are adopted they cannot stand the competition with the progressive farmers.

Formerly a farmer lived on the product of his farms and was satisfied if he could meet his needs from his own land. Now is the time to live on the profits of his farm and therefore he has to explore the potentialities of his land to its utmost. The gulf is daily increasing between the old and the progressive farming. This can be bridged by the skilled planning for which the expert advice is indispensable.

Big farmers can afford to engage a whole-time specialist but the small farmers cannot pay for the expert services individually. The petty farmers of a locality should, therefore, form a society which may engage a retired officer of the agriculture department as their Counseller. He will be a qualified and experienced expert and will be able to advise on soil-conservation, crop management, tillage, horti-culture, animal-husbandry and cottage industry for the leisure periods. He will also be helping his clients in buying and selling and in arranging finances, maintaining accounts on proper lines and will be watching the trend of the market, the needs of the country and will advise to change the cropping scheme to meet the needs of the new conditions. The expert will not only make the existing cultivation more efficient and profitable but will also explore other avenues for increasing the income like bringing the culturable waste under plough and reclaiming the non-productive lands by applying the results of the scientific researches. Thus the small farmers through their co-operative organisation can be benefitted by the specialised, modern, technical services which individually cannot be available to them.

At present the specialized services are available only from the Govt. agriculture department but the department being yet in infancy their strength is too small to cope with the needs of all the farmers. Democracy cannot thrive unless the people learn to handle their affairs themselves. The interest of the farmers can best be served efficiently and economically by patronising Counsellers of professionally trained, skilled and experienced specialists. The scope for development in every branch of farming and in its allied industries is great and wise planning can immediately increase the farm receipts by 25% to 100%. All that is needed is the expert advice which alone can deliver goods better than the existing non-technical agencies.